

# Wide variations in the night visiting rate

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**SUMMARY.** *The night visit record of an out-of-hours rota service of a large health centre which includes 10 group practices was examined. The mean annual night visiting rate for the health centre was 35.2 per 1000 patients, ranging from 25.8 to 43.5 between individual practices. The organization of medical care at night was the same for all the practices, and no major demographic differences between practices were identified. It is argued that the doctor-patient relationship may have an influence on differences in night visiting rates.*

## Introduction

THE frequency of night calls varies widely between different practices and night visit rates of between 1.2 and 46.1 per 1000 patients per year have been reported.<sup>1</sup> Many factors may influence this, but those that have been shown to be of major importance are the geographical type of practice, practice size, area of the country, use made of deputizing services<sup>1,2</sup> and the age and socioeconomic class structure of the practice.<sup>3</sup> However, most of the variation in night visiting rates remains unexplained by these factors, which has been taken to support the thesis<sup>4</sup> that the supply of medical care is more important than demand in shaping its use.<sup>2</sup> Another possibility is that patients' expectations vary from practice to practice,<sup>5</sup> leading to more requests for visits at night in certain practices. With this in mind the night call record of a large health centre out-of-hours rota service was examined.

## Method

The health centre provides primary medical care to about half the population of Inverclyde, a mainly industrial area. It contains 10 group practices, of two to six partners each, and a total health centre list of 63 249 patients. There has been little change in group practice list sizes over at least the last four years.

Outside normal working hours, all calls to the health centre are taken by the extended rota service, and all visits are made by general practitioners from the health centre working for the rota service. All calls and visits are recorded and the service has been running for four years. Thus the night time provision of medical care has been identical for all practices in the health centre. All the practices are long established and take patients from throughout the health centre area so that major differences in age, socioeconomic class or morbidity distribution are unlikely.

## Results

Table 1 records the list size, the number of night visits during the 24 months 1 September 1982 to 31 August 1984 and the calculated night visiting rates per 1000 patients per year for each group practice in the health centre. The mean night visiting rate for the health centre was 35.2 during the period studied and the range between individual practices was 25.8 to 43.5. The variation in night visiting rate between practices was highly significant, and there was no evidence of a correlation between the practice list size and the night visiting rate.

The possibility was considered that differences in age distribution of practice lists (and thus of patients seen at night) was responsible for the variation in night visiting rate, although this was thought

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unlikely for the reasons given. To test this, the age distribution of all patients seen in practice A (lowest rate) and practice I (highest rate) were compared, and the Kolmogorov-Smirnov two-sample test statistic calculated. This was 0.099 and was not significant (limit of 5% critical region = 0.125).

**Table 1.** Practice list sizes and night visits during the study period.

Practice	List size	Total night visits <sup>a,b</sup>	Night visiting rate
A	3084	159	25.8
B	6178	504	40.8
C	10 032	711	35.4
D	9224	678	36.6
E	7009	519	37.0
F	5714	406	35.5
G	4424	290	32.8
H	3241	178	27.5
I	5296	461	43.5
J	9047	543	30.0
Health centre	63 249	4449	35.17

<sup>a</sup> Correlation coefficient between list size and total night visits,  $r = 0.330$ ,  $P > 0.10$ . <sup>b</sup> For null hypothesis that night visiting rate is the same for all practices,  $\chi^2 = 76.45$ , d.f. = 9,  $P < 0.001$ .

## Discussion

A large variation in night visiting was found between practices with identical catchment areas and identical night cover, and there is no reason to expect major differences in demographic factors or morbidity between the practices.

Previous studies of night calls in general practice have failed to explain most of the variation in night visiting rates by analysis of demographic features of the patient population or characteristics of the medical care provided, and this study supports the observation that some other factor is a major determinant of night calls.

One candidate for this undefined factor is variation in patient expectations.<sup>6</sup> In view of the similarities between the practice populations in this study, it is suggested that a likely determinant of patient expectations lies within some facet of the doctor-patient relationship, and that direct investigation of this factor would be fruitful.

## References

- Sheldon MG, Harris SJ. Use of deputising services and night visit rates in general practice. *Br Med J* 1984; **289**: 474-476.
- Buxton MJ, Klein RE, Sayers J. Variations in G.P. night visiting rates: medical organisation and consumer demand. *Br Med J* 1977; **1**: 827-830.
- Riddell JA. Out of hours visits in a group practice. *Br Med J* 1980; **280**: 1518-1519.
- Logan RFL, Ashley JSA, Klein RE, Robson DM. *Dynamics of medical care*. London: London School of Hygiene, 1972.
- Watkins CJ. *The measurements of the quality of general practitioner care. Occasional paper 15*. London: RCGP, 1981.
- Cunningham RJ. Night calls in a single handed rural practice. *J R Coll Gen Pract* 1980; **30**: 745-747.

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